COAS-VR
Wavefront Aberrometer

COAS-VR combines measurements of static and dynamic accommodation with wavefront technology.

Reliable accommodation measurements are only possible when the eye is stimulated in a natural way. ***COAS-VR*** gives the patient an open viewing field of any target placed in front of the unit.

A small bread board allows mounting for any user-provided targets. It is possible to install a motorized target for dynamic measurements. A standard push up test can also be mounted here. During all measurements, the patient can wear normal spectacles or contact lenses.

COAS-VR is built around ***COAS***, the world's highest resolution wavefront aberrometer (picture above).

COAS-VR makes it possible to distinguish between true accommodation and pseudo-accommodation and to quantify the effects of both.

True accommodation is a change in the refractive power of the eye due to contraction of the ciliary muscle. ***COAS-VR*** accurately measures true accommodation. In addition, ***COAS-VR*** quantifies the role of pseudo-accommodation by producing point spread functions and visual simulations from the wavefront data. The researcher can explore the effects of depth of focus, astigmatism, spherical aberration, coma, and pupil size.

Along with accommodation, ***COAS-VR*** is configurable in many ways to support research programs, including eye tracking, contact lens stability, video targets, variations in target color and contrast, and off-axis aberrations.

The ***COAS*** Wavefront Analyzer is an advanced system for acquiring data to diagnose the visual functions of the eye. The unit performs a complete analysis of the eye's optical path based on advanced wavefront sensing technology.

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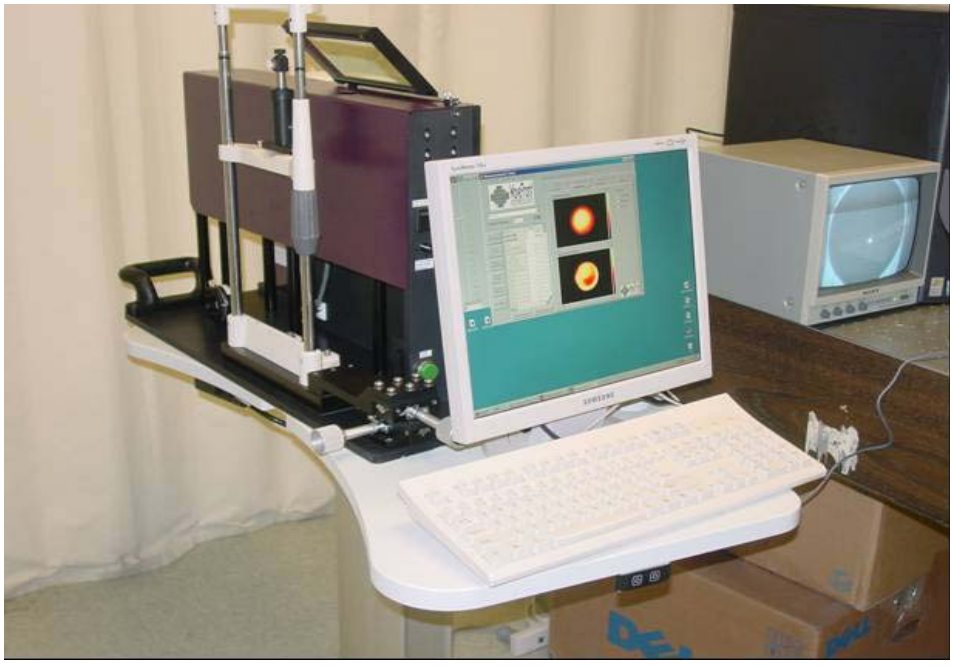
A Promise for Life

AMO WaveFront Sciences Precision Aberrometers			
Specification	**Measurement Unit**	***COAS***	***COAS-HD 2800***
Array Resolution (effective lenslet pitch)	Microns	210	158
Samples in pupil diameter of:	Unit		
7.0 mm		872	1541
9.5 mm		N/A	2837
Maximum Measurable Pupil Diameter	Millimeters	7.2	9.5
Sphere Range	Diopters	-17 to +7	-17 to +8
Accuracy	Diopters	±0.15D in the range: -14 to +7D ±0.5D in the range: -17 to -14D	±0.15D in the range: -15 to +8D ±0.5D in the range: -17 to -15D
Cylinder Range	Diopters	±3.0	±5.0
Accuracy	Diopters	better than 0.05 using test lenses	better than 0.05 using test lenses
Axis Accuracy	Degrees	±2 degrees	±2 degrees
Wavefront Accuracy	Microns	0.05 RMS	0.05 RMS
Repeatability			
Sphere	Diopters	0.02 scan to scan using test lenses	0.02 scan to scan using test lenses
Cylinder	Diopters	0.02 scan to scan using test lenses	0.02 scan to scan using test lenses
Visual Stimulus	Diopters	fogged at 1.5D	fogged at 1.5D



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